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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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BELL, BOYD & LLOYD, LLC P. O. BOX 1135 CHICAGO, IL 60690-1135			EXAMINER NG, CHRISTINE Y	
			ART UNIT 2663	PAPER NUMBER

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/966,853		SALLER, FRANZ	
	Examiner		Art Unit	
	Christine Ng		2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the network-externally valid connection destination" in lines 14-15. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,772,210 to Edholm.

Referring to claim 1, Edholm discloses a method for establishing a connection from a network-internal terminal of a packet-based communication network to a network-external connection destination (public to private network or private to public network), the method comprising the steps of:

[Figure 2B] Transmitting (request 221), via the terminal logical address information (phone number of called VOIP device 102,110) that identifies the network-external connection destination (VOIP device 102,110) to a central connection controller (gatekeeper 112) provided for controlling and managing network-internal connections. Refer to Column 5, line 63 to Column 6, line 2.

[Figure 2B] Determining (response 222), via the connection controller, a gateway device (gateway 106) of the communication network as the connection destination based on the transmitted logical address information. Refer to Column 6, lines 3-9.

[Figure 2B] Establishing (not shown) a connection controlled by the connection controller between the terminal and the gateway device. The VOIP device 102,110 and gateway 106 can send messages such as request 223 and response 224 to each other.

[Figure 2B] Transmitting (request 223), via the terminal, the logical address information to the gateway device. Gateway 106 uses the phone number of the called VOIP device to determine a public network address or address/port number pair for the called VOIP device. Refer to Column 6, lines 10-13 and Column 6, line 32 to Column 7, line 12.

[Figure 2B] Determining (response 224), via the gateway device, a network-externally valid transport address (public network address or address/port number pair for the called VOIP device) which is assigned to the transmitted logical address information. Refer to Column 6, lines 14-31 and Column 6, line 32 to Column 7, line 12.

[Figure 8] Addressing, via the gateway device, the network-external connection destination in a relaying, packet-based communication network (VOIP network). Refer to Column 1, lines 19-27 and Column 7, line 62 to Column 8, line 9.

[Figure 8] Relaying the connection over the relaying communication network to the external connection destination based on the network-externally valid transport address. Depending on which direction the communication destination is, the gateway translates packets 801,803 into translated packets 802,804 using the public address or public address/port number for the called VOIP number. Refer to Column 7, line 13 to Column 8, line 9.

Referring to claim 2, Edholm discloses the steps of:

[Figure 2B] Transmitting (response 222) to the terminal (VOIP device 102,110), via the connection controller (gatekeeper 112), a network-internally valid transport address (gateway address) which is assigned to the transmitted logical address information (area code of phone number of called VOIP device) and addresses the gateway device (gateway 106). Refer to Column 6, lines 3-9.

[Figure 2B] Initiating (by sending request 223) the connection to the gateway device, via the terminal, based on the network-internally valid transport address. Refer to Column 6, lines 10-13.

Referring to claim 3, Edholm discloses the step of:

Registering the gateway device (gateway 106) as a network-internal connection destination with the connection controller (gatekeeper 112) under the logical address information (phone number of called VOIP device) that identifies the network-external

connection destination (VOIP device 102,110). The gatekeeper 112 determines the gateway 106 for the VOIP connection, based upon the area code of the called phone number and sends this information to the calling VOIP device 102,110. Refer to Column 6, lines 3-13.

Referring to claim 4, Edholm discloses the step of:

[Figure 8] Transmitting the logical address information (phone number of called VOIP device) to the network-external connection destination (VOIP device 102,110) over the relaying communication network (VOIP network). Refer to Column 7, line 62 to Column 8, line 9.

Referring to claim 5, Edholm discloses the step of:

Simulating, via the gateway device (gateway 106), to the connection controller (gatekeeper 112) that the gateway device is the destination of the connection to be established. The gatekeeper 112 determines the gateway 106 for the VOIP connection, based upon the area code of the called phone number and sends this information to the calling VOIP device 102,110. Refer to Column 6, lines 3-13.

5. Claim 11 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,798,745 to Feinberg.

Feinberg discloses in Figure 1 a gateway apparatus (106), comprising:

A first packet-switched interface (connection to gatekeeper 108) conforming to a gatekeeper-controlled communication network, the first interface conforming to ITU-T Recommendation H.323 and being designed for operation in a gatekeeper-controlled H.323 mode. Gateway 106 and gatekeeper 108 communicate using the H.323 protocol.

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Refer to Column 3, lines 45-53. The gatekeeper 108 provides terminal and gateway registration, address resolution, bandwidth control, and other network administration functions. Refer to Column 2, lines 61-63. As shown in Figure 2, signaling between the gateway 106 and gatekeeper 108 occurs over a packet-switched interface, the packet network signaling interface 206. Refer to Column 4, line 64 to Column 5, line 3.

A second packet-switched interface (connection to packet network 110) to a further communication network (packet network 110), the second interface conforming to ITU-T Recommendation H.323 and being designed for simultaneous operation in a non-gatekeeper H.323 mode. Gateway 106 uses the H.323 protocol. Refer to Column 3, lines 45-53. This connection between gateway 106 and packet network 110 is non-gatekeeper H.323 mode since it does not interact with the gatekeeper 108. Refer to Column 6, lines 21-25. Packet network 110 can be an IP network, FR network, ATM network, or any other packet-based network. Refer to Column 2, lines 47-54.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,363,065 to Thornton et al in view of U.S. Patent No. 6,772,210 to Edholm.

Referring to claim 6, Thornton et al disclose a packet-based communication network, comprising:

[Figure 11] A central connection controller (gatekeeper) for controlling and managing network-internal connections (inter-domain) and for converting logical address information (called VOIP number) that identifies network-internal connection destinations into network-internally valid transport addresses (network transport addresses) for transporting data packets within the communication network. Refer to Column 41, line 29 to Column 42, line 10. Gatekeepers provide address translation by translating between an Alias Address (phone number) of a telephony endpoint and its network transport address (IP address) using a routing table and descriptors. Refer to Column 18, lines 18-38. Gatekeepers use routing tables and routing information in the form of descriptors to resolve the called number into a network address within its own domain. Refer to Column 38, lines 39-61 and Column 43, lines 10-13.

[Figure 19] A gateway device (border element) that can be connected to a relaying communication network for converting logical address information (called VOIP number) that identifies network-external connection destinations into network-externally valid transport addresses (network transport addresses) for transporting data packets over the relaying communication network. When establishing a call between endpoints in Administrative Domains A and B, calling gatekeeper 420 issues a request to border element 430 to resolve the called number into a destination network address for the called endpoint. Refer to Column 55, lines 15-62.

Thornton et al do not disclose that the gateway device is registered in the connection controller as a network-internal connection destination under logical address information that identifies a network-external connection destination, and the external connection destination in the gateway device is registered as a network-external connection destination under the logical address information.

Edholm discloses that a gateway device (gateway 106) is registered as a network-internal connection destination under the logical address information (phone number of called VOIP device 102,110) that identifies the network-external connection destination (VOIP device 102,110), and the external connection destination in the gateway device is registered as a network-external connection destination under the logical address information. The gatekeeper 112 determines the gateway 106 for the VOIP connection, based upon the area code of the called phone number and sends this information to the calling VOIP device 102,110. Refer to Column 6, lines 3-13. Also, the external connection destination (called VOIP device 102,110) is registered as a network-external connection destination under the logical address information, since the logical address information is the phone number of the called VOIP device 102,110. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the gateway device is registered in the connection controller as a network-internal connection destination under logical address information that identifies a network-external connection destination, and the external connection destination in the gateway device is registered as a network-external connection destination under the logical address information; the motivation being so that the

logical address information (called VOIP device number) can represent both the gateway and the destination, thereby allowing the gateway to route the call to the destination.

Referring to claim 7, Thornton et al disclose that the central connection controller (gatekeeper) is a gatekeeper conforming to ITU-T Recommendation H.323. Refer to Column 18, lines 18-24.

Referring to claim 8, Thornton et al disclose that the logical address information (called VOIP number) further comprises at least one of a prefix number (none), service number (phone number) and a terminal directory number (none). Refer to Column 18, lines 25-28.

Referring to claim 9, Thornton et al disclose that at least one of the network-internally valid transport address (network transport addresses) and the network-externally valid transport address (network transport addresses) are based on the Internet Protocol (IP). Refer to Column 18, lines 25-28.

Referring to claim 10, Thornton et al discloses that the gateway device further comprises an access control device for rejecting connection requests arriving from the relaying communication network whose respective origin is not registered in the gateway device. Thornton et al disclose that a gatekeeper may reject calls from telephony endpoint due to an authorization failure, which may include restricted access from particular telephony endpoints. Refer to Column 18, lines 58-63. If a endpoint is not registered (restricted access) as part of an administrative domain, it cannot send connection requests to the gateway of the administrative domain.

Thornton et al do not specifically disclose that this applies to connection requests whose respective origin is not registered as a *network-external connection destination*.

However, Thornton et al discloses that each gatekeeper controls access to the network for other telephony endpoints and other gateways that have registered with that gatekeeper. Other gateways include endpoints in another administrative domain. Refer to Column 18, lines 18-38. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that this applies to connection requests whose respective origin is not registered as a *network-external connection destination*; the motivation being so that each gatekeeper is only responsible for routing calls from certain destinations inside and outside its domain; thereby alleviating each gatekeeper through load balancing.

Response to Arguments

8. Applicant's arguments filed September 1, 2005 have been fully considered but they are not persuasive.

Referring to the argument of claim 1 that the gatekeeper of Edholm does not determine the gateway as the destination endpoint of the connection (page 6, lines 16-29), refer to Figure 2B. Upon receiving the request 221 from the calling VoIP device (102,110), the gatekeeper 112 determines the gateway for the VoIP connection based upon the area code of the phone number. Refer to Column 6, lines 3-9. The gateway 106 reads on a "connection destination" since it determines the called VoIP device and the public network address or address/port number pair for the called VoIP device. The gateway 106 then connects the calling VoIP device and called VoIP device. Also, claim

1 states that the connection controller determines "a gateway device of the communication network as a connection destination based on the transmitted logical address information" (claim 1, lines 7-8). Similarly, based on the called VoIP phone number (transmitted logical address information), the gatekeeper (connection controller) determines gateway 106 as a connection destination.

Referring to the argument of claim 1 that Edholm does not establish a connection between the terminal and the gateway (page 7, lines 1-8), refer to Figure 2B. A connection is established between the calling VoIP device (102,110) and gateway 106, as shown by request 223 and response 224. Refer to Column 6, lines 10-30.

Referring to the argument of claim 1 that the "public network address or address/port number for the called VoIP device" in Edholm is not a network-externally valid transport address (page 7, lines 9-26), refer to Figure 2B. The gateway 106 performs network address translation. Network address translation is used to enable a VoIP device to communicate across two communicate networks that require different network addresses. For example, the gateway may map a private address for use in a private network to a public address for use in a public network. Refer to Column 3, line 44 to Column 4, line 7. Therefore, the "public network address or address/port number for the called VoIP device" reads on a "network externally valid transport address", since the public network address can be used outside a private network for communication with devices in the public network. Also, claim 1 states that the network-externally valid transport address "is assigned to the transmitted logical address information" (claim 1, lines 12-13). Similarly, after the public address assignment is made, "the logic installs

an address translation entry in the address mapping database mapping the private address of the private VoIP device 110 to the public address or public address/port number pair for the private VoIP device 110" (Column 6, lines 47-51).

In response to applicant's argument that there is no suggestion to combine the references (referring to claim 6; page 8, line 7 to page 9, line 24), the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Edholm (Figure 2B) and Thornton et al (Figure 19) both show methods to connect two networks using a gatekeeper and gateway, with the gateway providing address translation between the two networks: the private and public network in Edholm, and the intradomain and interdomain networks in Thornton et al. By modifying Thornton et al to include that the logical address information (called number) represents the network-internal connection destination (gateway) and the external connection destination (called device), the gatekeeper can route calls both within and outside the network. As shown in Thornton et al, Figure 19, if the endpoint (represented by the called endpoint number) is not within administrative domain A, gatekeeper 420₁ issues a request to border element 430 to provide a destination network address for the called endpoint. One would be motivated to modify the called endpoint number to represent both the gateway and the actual external

connection destination in order to facilitate call routing. If the called endpoint number is not within an administrative domain, the call can be routed directly to a gateway for address translation, and if the called endpoint point is within the administrative domain, the call can be routed directly to the endpoint.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Ng whose telephone number is (571) 272-3124. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. Ng CW
November 3, 2005


RICKY NGO
PRIMARY EXAMINER
11/10/05